



**WATER MANAGEMENT DIVISION
MONTHLY REPORT**

Information Exchange Bulletin

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**RESERVOIR OPERATION AND SYSTEM STATUS
FOR SEPTEMBER 1999**

HIGHLIGHTS – Cairo began the month at 15.85', its highest level for September, and ended at 11.12'. The Ohio River's lowest stage at Cairo for September was 10.25' on the 27th. Normal stage for the month is 16 feet.

WEATHER – The weather during September was dry. The drought conditions of August continued for much of the month of September as temperatures were a little closer to normal. The basin averaged less than half of the expected normal with much of Kentucky, Tennessee, southern Illinois and Indiana observing less than 25 percent of normal rainfall. The heavy rains of Hurricane Floyd generally did not extend over into the Ohio River basin; however, eastern portions of West Virginia and Pennsylvania highlands received enough rainfall to reach normal for the month. The fall transition when cold air masses move south has begun and has brought average temperatures for the month to near normal.

The following table summarizes temperature and precipitation for September:

TEMPERATURE AND PRECIPITATION – SEPTEMBER 1999

STATION	TEMPERATURE		PRECIPITATION	
	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	64.2	+0.3	1.97	-1.00
Charleston, WV	65.8	-1.9	1.81	-1.43
Columbus, OH	67.8	+2.3	1.91	-1.05
Cincinnati, OH	66.8	-0.5	0.86	-2.02
Louisville, KY	70.5	+1.0	0.53	-2.63

Indianapolis, IN	67.0	+0.4	0.75	-2.12
Evansville, IN	68.2	-1.0	0.39	-2.58
Nashville, TN	71.9	+0.1	1.99	-1.50

STREAMFLOW -- Ohio River monthly average flows for September ranged from a low of 36 percent of normal at Evansville, IN to a high of 56 percent of normal at Pittsburgh, PA. Daily flows ranged from a low of 17 percent of normal at Evansville, IN to a high of 156 percent of normal at Pittsburgh, PA.

The following table presents the flow data summary for September at the Ohio River Index Stations:

FLOW DATA – SEPTEMBER 1999

STATION	AVERAGE MONTHLY FLOW	PERCENT LONG-TERM NORMAL		
		MONTHLY	DAILY	
			HIGH	LOW
Pittsburgh, PA	5,681	56	156	45
Huntington, WV	9,900	43	88	18
Cincinnati, OH	11,600	41	70	21
Louisville, KY	11,767	40	82	17
Evansville, IN	12,533	36	74	17
Paducah, KY	45,333	52	75	43

RESERVOIRS -- September started with 0.2% utilization of the total system flood control storage and ended the month at 0.6%. System-wide augmentation storage decreased from 85.3% at the beginning of the month to 80.2% by the end of the month. No significant flood storage utilization in excess of 25% occurred at any of the reservoir projects during September.

The following table depicts storage change by tributary reservoir subsystem for September:

CHANGE IN STORAGE	(ACRE-FEET)
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TRIBUTARY-RESERVOIR SUBSYSTEM	
Allegheny-Monongahela-Beaver	-152,200
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	-62,400
Twelvepole-Big Sandy-Little Sandy-Scioto	-26,600
Little Miami-Licking-Mill Creek-Great Miami	-13,600
Kentucky-Salt-Green-Wabash	-77,200
Cumberland	-550,900
TOTAL	-882,900

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